

## **Analysis of Onion Fields Following Rotation on Muck Soils in Orange County, New York**

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### **Abstract:**

On May 31, 1998, the Orange county onion growing region was hit with a severe hail storm. Damage was extensive. Scouting was suspended during the month of June while growers figured out which fields they would keep and which fields were plowed under. Previous trial results have demonstrated sudangrass rotated fields have higher stand counts and yields. We wanted to see if we could find out what was happening to give these results. Most of the comparison fields we intended to study were not kept because of the hail damage. We did the best we could and came up with interesting and useful information.

An evaluation of the impact different rotational crops have on onion production was undertaken. Rotated fields from the previous year were found. Onion fields following lettuce, spinach, potatoes and sorghum sudangrass rotations were evaluated. Since scouting and evaluation began in early July, evaluation for early season mites, smut or maggot damage was not possible. Using comparison plots, we were able to evaluate for thrip, botrytis leaf blight, pink root, bacterial rot and black mold. We found no statistical difference between rotated fields and non-rotated fields when looking at thrip, botrytis, pink root or bacterial rot. We did find a difference concerning black mold. In four out of five comparison plots black mold was higher in non-rotated fields than rotated fields. As might be expected, stand counts and yields were higher in rotated fields while size was slightly smaller in rotated fields considering the greater stand counts.

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